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## NOTICE OF ALLOWANCE AND FEE(S) DUE

28164 7590 06/04/2009

ACCENTURE CHICAGO 28164  
BRINKS HOFER GILSON & LIONE  
P O BOX 10395  
CHICAGO, IL 60610

EXAMINER

ANDERSON, FOLASHADE

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 06/04/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,157

07/07/2003

Olivier Pelletier

10022/579

8242

TITLE OF INVENTION: DETERMINING A SCENT OR TASTE PROFILE FOR PREDICTING A USER ADAPTED SCENT OR TASTE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/04/2009

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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28164 7590 06/04/2009

ACCENTURE CHICAGO 28164  
BRINKS HOFER GILSON & LIONE  
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CHICAGO, IL 60610

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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,157 07/07/2003 Olivier Pelletier 10022/579 8242

TITLE OF INVENTION: DETERMINING A SCENT OR TASTE PROFILE FOR PREDICTING A USER ADAPTED SCENT OR TASTE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 09/04/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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ANDERSON, FOLASHADE 3623 705-010000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,157	07/07/2003	Olivier Pelletier	10022/579	8242
28164	7590	06/04/2009	EXAMINER	
ACCENTURE CHICAGO 28164 BRINKS HOFER GILSON & LIONE P O BOX 10395 CHICAGO, IL 60610			ANDERSON, FOLASHADE	
			ART UNIT	PAPER NUMBER
			3623	
DATE MAILED: 06/04/2009				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1111 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1111 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/615,157	PELLETIER, OLIVIER	
	<b>Examiner</b>	<b>Art Unit</b>	
	FOLASHADE ANDERSON	3623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's after final amendment 04/27/2009.
2. ☒ The allowed claim(s) is/are 2-17 and 20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
|--|---|

/Folashade Anderson/  
Examiner, Art Unit 3623

/Beth V. Boswell/  
Supervisory Patent Examiner, Art Unit 3623

## **DETAILED ACTION**

### ***Response to Amendment***

1. The following is in response to Applicant's after final amendment filed 04/27/2009. Claims 1, 18, and 19 are canceled and claims 2-7, 12, 17, and 20 are amended.
2. The previously pending claims objection with respect to claims 2, 5, 7 and 20 has been withdrawn.
3. The previously pending claims objection with respect to claim 18 is now moot.

### ***EXAMINER'S AMENDMENT***

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
5. Authorization for this examiner's amendment was given in a telephone interview with Marc V. Richards, registration number 37,921, on 05/20/2009. It is further noted that the agreement was reached via a series of conversation that took place at various times from 05/15/2009 until 05/20/2009. The application has been amended as follows:

**In the claims:**

*NOTE:* The Examiner's amendment's are made with respect to the Applicant's after final amendment submitted 04/27/2009.

1. (Canceled)

2. (Currently amended) A method for determining a scent or taste profile of a user comprising:

storing in a computerized system for each of a set of products chosen among products for which a database includes smell or taste prints constituted by a set of measurements given by smell or taste electronic sensors, a satisfaction note rating (SN) given by the user; ~~and~~

automatically calculating by the computer weighting coefficients constituting said profile and respectively affected to said sensors measurements, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of satisfaction notes; and

selecting a product based on said weighting coefficients constituting said profile;

wherein the weighting coefficients of the user's profile are determined by minimizing the result of the following formula by successive approximation of sets of weighting coefficients  $\alpha_j$ ,

$$\frac{\sum_{h=1}^q \left( SN_h - \sum_{j=1}^n (\alpha_j \cdot MV_{j,h}) \right)^2}{},$$

where  $SN_h$  designates the rating given by the user for the product of rank h of said set of q products, where  $\alpha_j$  designates the weighting coefficient of rank j affected to the product of rank j of the smell or taste prints, and where  $MV_{j,h}$  designates the scores of rank j of the smell print of product of rank h.

3. (Previously presented) The method of claim 2, wherein each satisfaction note rating, is a value from 1 to 5.

4. (Previously presented) The method of claim 2, further comprising receiving from the user an additional rating for an additional product selected, on the basis of the already given ratings, as being the product for which the notation of the user will be the most relevant for the user profile.

5. (Previously presented) A method for selecting a product adapted to a user on the basis of its smell or taste comprising:

storing in a computerized system for each of a set of products chosen among products for which a database includes smell or taste prints constituted by a set of measurements given by smell or taste electronic sensors, a satisfaction note rating (SN) given by the user;

automatically calculating by the computer weighting coefficients constituting a user profile and respectively affected to said sensors measurements, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of satisfaction notes;

receiving from the user an additional rating for an additional product selected, on the basis of the already given ratings, as being the product for which the notation of the user will be the most relevant for the user profile;

wherein the selection of the additional product is made by maximizing the following formula over all the products:

$$\sum_{j=1}^m \left( \sum_{L=1}^{NL} \frac{f(L) \cdot |\alpha_{j,s} - \alpha_{j,s',L}|}{\alpha_{j,s}} \right),$$

where NL is the total number of values for the ratings L of the user;  $\alpha_{j,s}$  is the set of coefficients  $\alpha_j$  already calculated on the basis of the q products already noted by the user;  $\alpha_{j,s',L}$  is the set of coefficients  $\alpha_j$ , calculated for the set of q+1 products under the

Art Unit: 3623

hypothesis of a note L for the product of rank q+1; and f(L) is an optional function of weighting of the different coefficients  $\alpha_j$ .

6. (Previously presented) A method for selecting a product adapted to a user on the basis of its smell or taste, using a user profile determined according to any one of claims 2 or 4, the method comprising:

estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and  
selecting among the products, a subset on the basis of the estimated rating.

7. (Currently amended) A method for selecting a product adapted to a user on the basis of its smell or taste comprising:

storing in a computerized system for each of a set of products chosen among products for which a database includes smell or taste prints constituted by a set of measurements given by smell or taste electronic sensors, a satisfaction note rating (SN) given by the user;

automatically calculating by the computer weighting coefficients constituting a user profile and respectively affected to said sensors measurements, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of satisfaction notes;

estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and

selecting among the products, a subset of products on the basis of the estimated rating,

wherein the estimated rating for each product is obtained by applying the following formula:

$$IP_i = \sum_{j=1}^n \alpha_j \cdot MV_{i,j},$$

Art Unit: 3623

where  $IP_i$  designates the note estimated for the product  $P_i$  of the database, where  $\alpha_j$  designates the weighting coefficient of rank  $j$  affected to the product of rank  $j$  of the smell or taste print according to the user's profile, and where  $MV_{ij}$  designates the measurement of rank  $j$  of the smell or taste print of product of rank  $i$ .

8. (Previously Presented) The method of claim 6, in which the product of said subset is selected for having an estimated rating close to the highest or lowest rating within a predetermined margin.

9. (Original) The method of claim 6, in which a predetermined number of products having the highest or lowest estimated rating constitutes said subset.

10. (Previously Presented) The method of claim 6, applied to perfumes selection.

11. (Previously Presented) The method of claim 6, applied to wines selection.

12. (Currently amended) A system for determining a scent or taste profile of a user comprising:

a database containing smell or taste prints of products constituted by a set of measurements given by smell or taste electronic sensors;

a memory element for storing a user rating of each of a set of products chosen among the products contained in said database; and

a calculator for determining weighting coefficients constituting said profile and respectively affected to said sensors, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of ratings and for selecting a product based on said weighting coefficients constituting said profile;

Art Unit: 3623

wherein the weighting coefficients of the profile are further determined by the calculator by minimizing the result of the following formula by successive approximation of sets of weighting coefficients  $\alpha_j$ ,

$$\sum_{h=1}^q \left( SN_h - \sum_{j=1}^n (\alpha_j \cdot MV_{j,h}) \right)^2,$$

where  $SN_h$  designates the rating given by the user for the product of rank  $h$  of said set of  $q$  products, where  $\alpha_j$  designates the weighting coefficient of rank  $j$  affected to the product of rank  $j$  of the smell or taste prints, and where  $MV_{j,h}$  designates the scores of rank  $j$  of the smell print of product of rank  $h$ .

13. (Previously Presented) The system of claim 12, further comprising:

an estimator to determine estimated ratings for products that have their smell or taste print in the database, by applying the weighting coefficients to the smell or taste prints; and

a selector for selecting among the products, a subset on the basis of the estimated ratings.

14. (Previously Presented) The system of claim 13, wherein said products are perfumes or wines.

15. (Previously Presented) The system of claim 13, wherein said selector is configured to select a subset of products having estimated ratings within a predetermined margin of the highest or lowest estimated rating.

16. (Previously Presented) The system of claim 12, further comprising a smell or taste electronic sensor.

Art Unit: 3623

17. (Currently amended) The method of claim 4 2, wherein said satisfaction note rating is a value from 1 to 3.

18. (Canceled)

19. (Canceled)

20. (Previously Presented) A system for selecting a product adapted to a user on the basis of its smell or taste, using a user profile, comprising:

a database containing smell or taste prints of products constituted by a set of measurements given by smell or taste electronic sensors;

a memory element for storing a user rating of each of a set of products chosen among the products contained in said database; and

a calculator for determining weighting coefficients constituting said profile and respectively affected to said sensors, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of ratings; for estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and for selecting among the products, a subset of the products on the basis of the estimated rating,

wherein the estimated rating for each product is obtained by the calculator by applying the following formula:

$$IP_i = \sum_{j=1}^n \alpha_j \cdot MV_{i,j},$$

Art Unit: 3623

where  $IP_i$  designates the note estimated for the product  $P_i$  of the database, where  $\alpha_j$  designates the weighting coefficient of rank  $j$  affected to the product of rank  $j$  of the smell or taste print according to the user's profile, and where  $MV_{ij}$  designates the measurement of rank  $j$  of the smell or taste print of product of rank  $i$ .

***Reasons for Allowance***

6. Claims 2-17 and 20 are allowed
7. The following is an examiner's statement of reasons for allowance:.
8. In regards to independent claim 2 none of the prior art of record, taken individually or in combination teaches inter alia, "selecting a product based on said weighting coefficients constituting said profile; wherein the weighting coefficients of the user's profile are determined by minimizing the result of the following formula by successive approximation of sets of weighting coefficients  $\alpha_j$ ,

$$\frac{\sum_{h=1}^q \left( SN_h - \sum_{j=1}^n (\alpha_j \cdot MV_{j,h}) \right)^2}{2},$$

where  $SN_h$  designates the rating given by the user for the product of rank h of said set of q products, where  $\alpha_j$  designates the weighting coefficient of rank j affected to the product of rank j of the smell or taste prints, and where  $MV_{j,h}$  designates the scores of rank j of the smell print of product of rank h."

9. In regards to independent claim 5 none of the prior art of record, taken individually or in combination teaches inter alia, "receiving from the user an additional rating for an additional product selected, on the basis of the already given ratings, as being the product for which the notation of the user will be the most relevant for the user profile; wherein the selection of the additional product is made by maximizing the following formula over all the products:

Art Unit: 3623

$$\sum_{j=1}^m \left( \sum_{L=1}^{NL} \frac{f(L) \cdot |\alpha_{j,s} - \alpha_{j,s',L}|}{\alpha_{j,s}} \right),$$

where NL is the total number of values for the ratings L of the user;  $\alpha_{j,s}$  is the set of coefficients  $\alpha_j$  already calculated on the basis of the q products already noted by the user;  $\alpha_{j,s,L}$  is the set of coefficients  $\alpha_j$ , calculated for the set of q+1 products under the hypothesis of a note L for the product of rank q+1; and f(L) is an optional function of weighting of the different coefficients  $\alpha_j$ .

10. In regards to independent claim 7 none of the prior art of record, taken individually or in combination teaches inter alia, “estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and selecting among the products, a subset of products on the basis of the estimated rating, wherein the estimated rating for each product is obtained by applying the following formula:

$$IP_i = \sum_{j=1}^n \alpha_j \cdot MV_{i,j},$$

where  $IP_i$  designates the note estimated for the product  $P_i$  of the database, where  $\alpha_j$  designates the weighting coefficient of rank j affected to the product of rank j of the smell or taste print according to the user's profile, and where  $MV_{i,j}$  designates the measurement of rank j of the smell or taste print of product of rank i.

11. In regards to independent claim 12 none of the prior art of record, taken individually or in combination teaches inter alia, “selecting a product based on said weighting coefficients constituting said profile; wherein the weighting

Art Unit: 3623

coefficients of the profile are further determined by the calculator by minimizing the result of the following formula by successive approximation of sets of weighting coefficients  $\alpha_j$ ,

$$\sum_{h=1}^q \left( SN_h - \sum_{j=1}^n (\alpha_j \cdot MV_{j,h}) \right)^2,$$

where  $SN_h$  designates the rating given by the user for the product of rank  $h$  of said set of  $q$  products, where  $\alpha_j$  designates the weighting coefficient of rank  $j$  affected to the product of rank  $j$  of the smell or taste prints, and

where  $MV_{j,h}$  designates the scores of rank  $j$  of the smell print of product of rank  $h$ .

12. In regards to independent claim 20 none of the prior art of record, taken

individually or in combination teaches inter alia, “a calculator for determining weighting coefficients constituting said profile and respectively affected to said sensors, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of ratings; for estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and for selecting among the products, a subset of the products on the basis of the estimated rating, wherein the estimated rating for each product is obtained by the calculator by applying the following formula:

$$IP_i = \sum_{j=1}^n \alpha_j \cdot MV_{i,j},$$

where  $IP_i$  designates the note estimated for the product  $P_i$  of the database, where

$\alpha_j$  designates the weighting coefficient of rank  $j$  affected to the product of rank  $j$

Art Unit: 3623

of the smell or taste print according to the user's profile, and where  $MV_{ij}$  designates the measurement of rank j of the smell or taste print of product of rank i.

13. The prior art of record most closely resembling Applicant's claimed invention are Juergens (US Patent 5,200,909), Hillier et al (Introduction to Operation Research, published 01/1995).

14. Juergens teaches a method for the evaluation of wine characteristics by "(1) determining the most important characteristic in consumer's wine preferences and purchase decisions; (2) determining whether those characteristics are linked to wine constituents which can be quantitatively determined, and making the quantitative determinations; and (3) converting the quantitative determinations to readily understandable ratings scales which correlate those characteristics important to consumers with the objective laboratory data," (col. 3, lines 20-36). Juergens further teaches where the scales values are determined calculated by a computer (col. 9, lines 21-25). And the customer of Juergens is choose a preference score in the areas of "body, tannin, astringency and sweetness. (col. 10, lines 56-59. Lastly Juergens teaches the "subroutine E prints the recommend wine list to the computer screen and/or printer." (col. 12, lines 59-64). However in determining the scale values based on objective laboratory data Juergens fails to utilize any of the specific formulas disclosed by the instant application in the selection of a product.

Art Unit: 3623

15. Hiller teaches formulas for minimizing sums of quadric errors (pp. 820-826).

However minimizing sums of quadric errors Hiller fails to utilize any of the specific formulas disclosed by the instant application or the these error are over a set of satisfaction nodes.

16. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FOLASHADE ANDERSON whose telephone number is (571)270-3331. The examiner can normally be reached on Monday through Thursday 8:00 am to 5:00 pm EST.
18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/615,157  
Art Unit: 3623

Page 16

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Supervisory Patent Examiner, Art Unit 3623